

What is claimed is:

1. A balance correction device that is adapted to be supported on an unbalanced article to balance the unbalanced article for rotation comprising:

a first disc having a first slot provided therein;

5 a second disc having a second slot provided therein, wherein portions of said first and second slots are axially aligned with one another; and

an object received within said axially aligned portions of said first and second slots, wherein said first and second discs are movable relative to one another to vary the position of said object relative thereto.

10

2. The balance correction device defined in Claim 1 further including a housing that supports said first disc, said second disc, and said object.

3. The balance correction device defined in Claim 1 wherein said first slot  
15 begins at or near a rotational center of said first disc and extends generally linearly outwardly therefrom.

4. The balance correction device defined in Claim 1 wherein said second  
20 slot begins at or near a rotational center of said second disc and extends generally arcuately outwardly therefrom.

5. The balance correction device defined in Claim 1 wherein said first slot  
begins at or near a rotational center of said first disc and extends generally linearly  
outwardly therefrom, and wherein said second slot begins at or near a rotational center  
25 of said second disc and extends generally arcuately outwardly therefrom.

6. The balance correction device defined in Claim 1 wherein said object is a ball.

7. The balance correction device defined in Claim 1 further including a control system for moving said first and second discs are relative to one another to vary the position of said object relative thereto.

5 8. The balance correction device defined in Claim 7 wherein said control system includes a sensor that generates a signal that is representative of a magnitude and location of a corrective action that can be taken to counterbalance the imbalances of the unbalanced article.

10 9. The balance correction device defined in Claim 8 wherein said control system further includes a controller that is responsive to said signal from said sensor for moving said first and second discs relative to one another.

15 10. The balance correction device defined in Claim 9 wherein said control system further includes first and second motors for moving said first and second discs relative to one another, and wherein controller is responsive to said signal from said sensor for controlling the operation of said first and second motors.

20 11. An article that is balanced for rotation comprising:  
an article that is unbalanced for rotation; and  
a balance correction device supported on said unbalanced article, said balance correction device including a first disc having a first slot provided therein; a second disc having a second slot provided therein, wherein portions of said first and second slots are axially aligned with one another; and an object received within said axially  
25 aligned portions of said first and second slots, wherein said first and second discs are positioned relative to one another to position said object relative to said unbalanced article to balance said unbalanced article for rotation.

12. The article defined in Claim 11 further including a housing that supports said first disc, said second disc, and said object on said unbalanced article.

13. The article defined in Claim 11 wherein said first slot begins at or near a rotational center of said first disc and extends generally linearly outwardly therefrom.

14. The article defined in Claim 11 wherein said second slot begins at or near a rotational center of said second disc and extends generally arcuately outwardly therefrom.

10

15. The article defined in Claim 11 wherein said first slot begins at or near a rotational center of said first disc and extends generally linearly outwardly therefrom, and wherein said second slot begins at or near a rotational center of said second disc and extends generally arcuately outwardly therefrom.

15

16. The article defined in Claim 11 wherein said object is a ball.

17. The article defined in Claim 11 further including a control system for moving said first and second discs are relative to one another to vary the position of said object relative to said unbalanced article.

20

18. The article defined in Claim 17 wherein said control system includes a sensor that generates a signal that is representative of a magnitude and location of a corrective action that can be taken to counterbalance the imbalances of said unbalanced article.

25

19. The article defined in Claim 18 wherein said control system further includes a controller that is responsive to said signal from said sensor for moving said first and second discs relative to one another.

20. The article defined in Claim 19 wherein said control system further includes first and second motors for moving said first and second discs relative to one another, and wherein controller is responsive to said signal from said sensor for  
5 controlling the operation of said first and second motors.